

## A new species of the genus *Trichocerota* Hampson (Lepidoptera, Sesiidae) from Taiwan

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**Abstract** A new species, *Trichocerota formosana* sp. nov., is described and figured from Taiwan. *Zenodoxus taiwanellus* Matsumura, 1931 is transferred to the genus *Paranthrenopsis* Le Cerf, 1911.

**Key words** Lepidoptera, Sesiidae, Tinthiini, new species, new combination, Oriental Region, Taiwan, taxonomy.

We have recently published the first part of a review of the clearwing moths (Lepidoptera, Sesiidae) of the island of Taiwan (Arita & Gorbunov, 2001). Therein we mentioned from the tribe Tinthiini six species grouped into four genera only and noted nothing concerning *Zenodoxus taiwanellus* Matsumura, 1931, which was described from Taiwan (Matsumura, 1931). Unfortunately, only the holotype specimen of this species is known, which is presently deposited in Entomological Institute of Hokkaido University, Sapporo, Japan (Arita, 1991). Both superficially and by the conformation of the male genitalia (see figs 15 and 22 in Arita, 1991) this species belongs to the genus *Paranthrenopsis* Le Cerf, 1911 (type species: *Paranthrenopsis harmandi* Le Cerf, 1911 = *Tinthia editha* Butler, 1878). We transfer it from the genus *Zenodoxus* Grote & Robinson, 1868 (type species: *Zenodoxus maculipes* Grote & Robinson, 1868) to this genus herein, *Paranthrenopsis taiwanellus* (Matsumura, 1931), **comb. nov.**

Further, when the first part of the review of the Taiwan Sesiidae was published, we had received a rather good series of a species belonging to the tribe Tinthiini. We describe it as a new species of the genus *Trichocerota* Hampson, 1893 [“1892”] (type species: *Trichocerota ruficincta* Hampson, 1893 [“1892”]).

All specimens examined are kept in the following collections abbreviated in the text as follows:

COGM—collection of O. G. Gorbunov, Moscow, Russia;

ZMUN—Zoological Laboratory, Faculty of Agriculture, Meijo University, Nagoya, Japan.

### *Trichocerota formosana* sp. nov. (Figs 1, 2a–d)

**Description.** Male (holotype) (Fig. 1). Alar expanse 27.6 mm; body length 12.4 mm; forewing 12.0 mm; antenna 6.7 mm.

Head: antenna and scapus dark brown to black with dark purple sheen; frons dark brown with green-blue sheen; labial palpus yellow-orange with a few dark brown to black scales externally; vertex dark brown to black with bright greenish sheen; occipital fringe dorsally

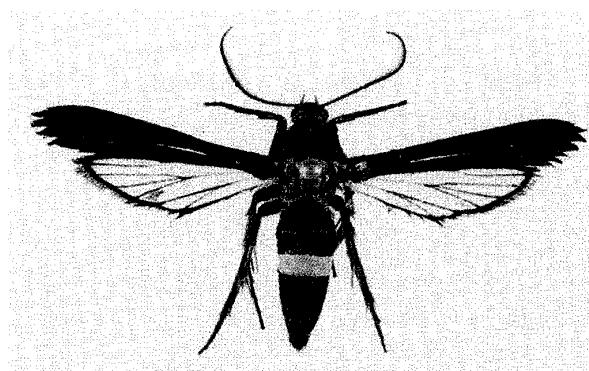


Fig. 1. *Trichocerota formosana* sp. nov., holotype ♂. Alar expanse 27.6 mm (ZMUN).

dark brown to black, laterally yellow-orange.

Thorax: patagia, tegula and mesothorax dark brown with green-purple sheen; metathorax dark brown with green-purple sheen, with a tuft of light brown and yellow-orange hair-like scales laterally; thorax laterally dark brown with bright green-bronze sheen; posteriorly metepimeron and metameron dark grey-brown with purple-green sheen.

Legs: dark brown with green-bronze sheen; forecoxa dark brown with bright green-bronze sheen, with a few dark orange scales both basally and distally; forefemur dark brown with bronze sheen, densely mixed with dark orange scales anteriorly; foretibia dorsally dark brown with purple-green sheen, with a few rusty-brown, elongated, pointed scales both basally and distally, ventrally dark yellow-orange; foretarsus dorsally dark brown with purple-green sheen, ventrally dark yellow-orange with golden sheen; midcoxa dark brown with greenish sheen; midfemur dark brown with greenish sheen, with a large, elongated, dark yellow-orange spot with golden sheen posterior-distally; midtibia dark brown with green-violet sheen, with admixture of dark yellow-orange scales ventrally, dorsally with a tuft of rusty-brown, elongated, pointed scales both basally and distally; spurs dark brown with purple-green sheen; midtarsus dark brown with green-violet sheen, with admixture of rusty-brown, elongated, pointed scales on four basal tarsomeres distally; hindcoxa dark brown with greenish sheen, with a few yellow-orange scales medially; hindfemur dark brown with greenish sheen, with a large, elongated, dark yellow-orange spot with golden sheen posterior-distally; hindtibia dark brown with green-bronze sheen, narrowly dark yellow-orange ventrally, dorsally with a tuft of rusty-brown, elongated, pointed scales both medially and distally; spurs dark yellow-orange with golden sheen, with a few dark brown scales with bronze sheen; hindtarsus exterior-dorsally dark brown with green-violet sheen, with admixture of rusty-brown, elongated, pointed scales on four basal tarsomeres, interior-ventrally dark yellow-orange with golden sheen.

Abdomen: dorsally dark brown to black with dark purple sheen; tergite 4 yellow to yellow-orange throughout; tergites 6 and 7 each with admixture of dark yellow-orange scales posteriorly; ventrally dark brown to black with green-bronze sheen; sternite 4 yellow to yellow-orange throughout; anal tuft extremely small, dark orange.

Forewing: dark brown with dark greenish sheen, with admixture of individual rusty-brown scales; external and posterior transparent areas undeveloped; anterior transparent area short and extremely narrow, covered with hyaline scales with brownish tint; cilia dark brown with bronze sheen.

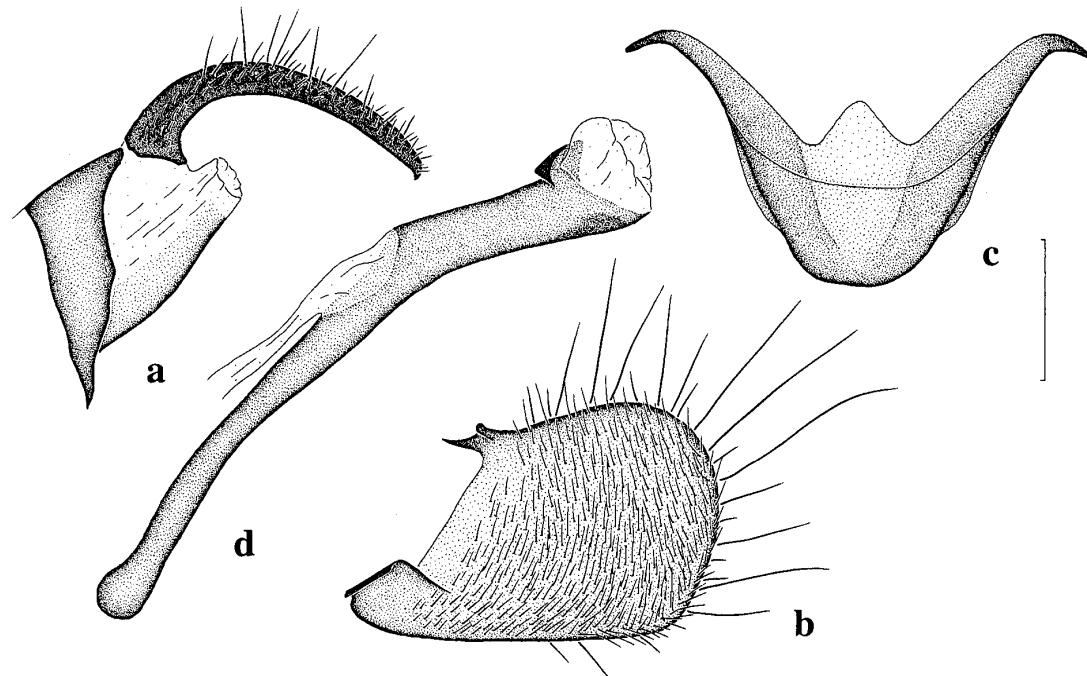


Fig. 2. Male genitalia of *Trichocerota formosana* sp. nov., paratype (genital preparation Nos GA-297 and 1839 YA). a. Tegumen-uncus complex. b. Valva. c. Saccus. d. Aedeagus. Scale bar: 0.5 mm.

Hindwing: transparent; veins and outer margin dark brown with bronze sheen; discal spot undeveloped; outer margin narrow, about twice as narrow as cilia; cilia brown with bronze sheen.

Male genitalia (paratype, genital preparation Nos GA-297 and 1839 YA) (Fig. 2a-d). Tegumen rather small, triangular (Fig. 2a) relatively small; uncus long, beak-shaped apically, covered with sparse short hair-like setae, well-separated from tegumen; tuba analis with scaphium undeveloped, subscaphium slightly sclerotized; valva (Fig. 2b) ovoid but slightly flattened dorsally, densely clothed with short hair-like setae and with a few long hair-like setae on outer surface distally; saccus (Fig. 2c) broad, rounded basally; vinculum narrow, about as long as saccus; aedeagus (Fig. 2d) relatively broad with long, slightly broadened and rounded basally coecum penis, with a triangular well-sclerotized tooth dorso-distally; vesica not armed.

Female. Unknown.

Individual variability. This species is rather variable in individual size: alar expanse 21.0–28.0 mm; body length 9.8–12.6 mm; forewing 9.8–12.5 mm; antenna 5.6–6.8 mm. Besides this, it is quite inconstant in the number of dark yellow-orange scales on the 6th and 7th tergites of the abdomen and rusty-brown scales on the forewing.

Differential diagnosis. This new species cannot be confused with any species of Tinthiini of both Taiwan and the Oriental Region as a whole in the characteristic coloration of the abdomen.

Bionomics. The host plant and larval bionomics are unknown. The moths were collected in August. All of the specimens used for description were collected with the use of artificial sex pheromone lures.

Habitat. Unknown.

Distribution. Known from Taiwan only.

Material examined. ♂ (holotype) (Fig. 1), Taiwan, Taoyuan Hsien, Paleng, 16. VIII. 1999, J. Luo leg. (ZMUN); 26 ♂ (paratypes), same locality and date, J. Luo leg. (2 ♂ with genital preparation Nos GA-297, 1839 YA and GA-298, 1840 YA) (ZMUN, COGM).

Etymology. This new species is named after Formosa, an old name of the island of Taiwan.

## References

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## 摘要

台灣産 *Trichocerota* Hampson (鱗翅目, スカシバガ科) の一新種 (有田 豊・Oleg G. Gorbunov)

著者らは 2001 年に台湾のスカシバガ科の一部を纏めた。その後, *Trichocerota* 属の一新種が見いだされた。

*Trichocerota formosana* sp. nov. (Figs 1, 2a-d)

この属の種類としてはやや大型で、腹部第4節背面が黄色であることから台湾だけでなく東洋区のこの属のどの種類からも容易に区別される。ホロタイプ、パラタイプとともに合成性フェロモンに飛来したものであるが、食餌植物を初め生態的なことはすべて不明である。

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